

ABSTRACT OF THE DISCLOSURE

A method including integrating information regarding receiving, transmitting and converting capabilities of each device in a network with regard to signal formats, so that a pertinent transmission path can be determined. Such possible transmission paths can be specified in terms of the order of devices involved in the transmission paths and a signal format between these devices involved. One of the possible transmission paths that match the transmitting device and the transmitted signal format is selected as a pertinent transmission path. The method displays the selected transmission path on a monitor. Commands are issued to devices involved in the pertinent path, and the input/output of these devices is controlled according to the commands to establish the selected transmission path automatically. According to one aspect of the invention, an apparatus includes a means for storing device capability information. Also included is a memory for storing capability information of other devices. An analog input terminal and a digital input/output terminal are included. A decoder coupled to the digital input/output interface is included. A controller to produce possible transmission paths is included. A monitor for displaying a selected path is included to assist a user in manually selecting the path. The controller includes a command generator for issuing commands to devices involved in the possible selected paths. Also, a selector for selecting the path automatically is included.